

CONTENTS OF VOLUME 51

Number 1

Papers

- 1 Water mobility and textural properties of native and hydroxypropylated wheat starch gels
S. G. CHOI & W. L. KERR (ATHENS, GA, USA)
- 9 Influence of the drying method on the physical properties and immunomodulatory activity of the particulate ($1 \rightarrow 3$)- β -d-glucan from *Saccharomyces cerevisiae*
Z. HROMÁDKOVÁ, A. EBRINGEROVÁ, V. SASINKOVÁ, J. ŠANDULA (BRATISLAVA, SLOVAKIA),
V. HŘÍBALOVÁ (PRAGUE, CZECH REPUBLIC) & J. OMELKOVÁ (BRNO, CZECH REPUBLIC)
- 17 Modification of cassava starch by using propionic anhydride and properties of the starch-blended polyester polyurethane
R. SANTAYANON & J. WOOTTHIKANOKKHAN (BANGKOK, THAILAND)
- 25 A rheological description of mixtures of a galactoxyloglucan with high amylose and waxy corn starches
R. A. FREITAS, P. A. J. GORIN, J. NEVES & M.-R. SIERAKOWSKI (CURITIBA, BRAZIL)
- 33 Poly(*N*-ethyl-4-vinylpyridinium) bromide as a potential probe to select heparin-like anticoagulant polyanions
FRÉDÉRIC CHAUBET (PARIS, FRANCE), VLADIMIR A. IZUMRUDOV (MOSCOW, RUSSIAN FEDERATION), CATHERINE BOISSON-VIDAL (PARIS, FRANCE) & JACQUELINE JOZEFONVICZ (VILLETTANEUSE, FRANCE)
- 37 Aggregation behaviour of polygalacturonic acid in aqueous solution
M. ALONSO-MOUGÁN, F. FRAGA, F. MEIJIDE, E. RODRÍGUEZ-NÚÑEZ & J. VÁZQUEZ-TATO (LUGO, SPAIN)
- 47 Interactions of starch with salts of metals from the transition groups
WOJCIECH CIESIELSKI (CZĘSTOCHOWA, POLAND), CHENG-YI LII, MING-TSUNG YEN (TAIPEI, TAIWAN, ROC) & PIOTR TOMASIK (CRACOW, POLAND)
- 57 Effect of alcoholic, glycolic, and polyester resin additives on the gelation of dilute solution (1%) of methylcellulose
P. P. KUNDU, M. KUNDU, M. SINHA (LONGOWAL, INDIA), S. CHOE (INCHON, SOUTH KOREA) & D. CHATTOPADHAYAY (FEROZEPUR, INDIA)
- 63 Evaluation of nitrogen containing starch and hydrolyzed starch derivatives as a size base materials for cotton yarns
Kh. M. MOSTAFA (EL-GIZA, EGYPT)
- 69 Oxidation process of water-soluble starch in TEMPO-mediated system
Y. KATO, R. MATSUO (SAITAMA, JAPAN) & A. ISOGAI (TOKYO, JAPAN)
- 77 Structure and morphology of cladodes and spines of *Opuntia ficus-indica*. Cellulose extraction and characterisation
MOHAMED E. MALAININE, ALAIN DUFRESNE, DANIELLE DUPEYRE, MOSTAFA MAHROUZ, ROGER VUONG & MICHEL R. VIGNON (GRENOBLE, FRANCE)

85 Three under-utilised sources of starch from the Andean region in Ecuador. Part II. Rheological characterisation
S. SANTACRUZ, J. RUALES (QUITO, ECUADOR) & A.-C. ELIASSON (LUND, SWEDEN)

93 Single-walled carbon nanotube—potato amylose complex
CHENG-YI LII (TAIPEI, TAIWAN, ROC), LESZEK STOBINSKI (WARSAW, POLAND), PIOTR TOMASIK (CRACOW, POLAND) & CHIA-DING LIAO (TAIPEI, TAIWAN, ROC)

99 Thermodynamic considerations of starch functionality in foods
VLADIMIR TOLSTOGUZOV (LAUSANNE, SWITZERLAND)

113 Erratum

115 Bibliography

123 Calendar

Number 2

Papers

125 A novel method for measuring hydration and dissolution kinetics of alginic acid powders
CHRISTIAN KLEIN LARSEN, OLAV GÅSERØD (DRAMMEN, NORWAY) & OLAV SMIDSØD (TRONDHEIM, NORWAY)

135 Structural characteristics of pectic polysaccharides from olive fruit (*Olea europaea* cv moraiolo) in relation to processing for oil extraction
ESTHER VIERHUIS, MANDY KORVER, HENK A. SCHOLS & ALPHONS G. J. VORAGEN (WAGENINGEN, THE NETHERLANDS)

149 Rheological characterization of the EPS produced by *P. acidi-propionici* on milk microfiltrate
N. GORRET (RENNES, FRANCE), C. M. G. C. RENARD (LE RHEU, FRANCE), M. H. FAMELART, J. L. MAUBOIS (RENNES, FRANCE) & J. L. DOUBLIER (NANTES, FRANCE)

159 Structural features of starch–lactone inclusion complexes in aqueous potato starch dispersions: the role of amylose and amylopectin
CORNELIA HEINEMANN, FELIX ESCHER & BÉATRICE CONDE-PETIT (ZURICH, SWITZERLAND)

169 Radiation synthesis and characteristic of the hydrogels based on carboxymethylated chitin derivatives
LONG ZHAO, HIROSHI MITOMO, NAOTSUGU NAGASAWA, FUMIO YOSHII & TAMIKAZU KUME (GUNMA, JAPAN)

177 Surfactant-mediated solubilisation of amylose and visualisation by atomic force microscopy
A. PATRICK GUNNING (NORWICH, UK), THIERRY P. GIARDINA (MARSEILLES, FRANCE), CRAIG B. FAULDS (NORWICH, UK), NATHALIE JUGE (MARSEILLES, FRANCE), STEVEN G. RING, GARY WILLIAMSON & VICTOR J. MORRIS (NORWICH, UK)

183 Phase transitions of inulin–waxy maize starch systems in limited moisture environments
J. E. ZIMERI & J. L. KOKINI (NEW BRUNSWICK, NJ, USA)

191 The reaction of starch with iodine vapor. Determination of iodide-ion content of starch–iodine complexes
JACOB A. RENDLEMAN (PEORIA, IL, USA)

203 Characterization of galactoglucomannan extracted from spruce (*Picea abies*) by heat-fractionation at different conditions
JON LUNDQVIST (LUND, SWEDEN), ANNA JACOBS (STOCKHOLM, SWEDEN), MAGNUS PALM, GUIDO ZACCHI (LUND, SWEDEN), OLOF DAHLMAN (STOCKHOLM, SWEDEN) & HENRIK STÅLBRAND (LUND, SWEDEN)

213 Physicochemical properties of starches during potato growth
Q. LIU, E. WEBER, V. CURRIE & R. YADA (GUELPH, ONT., CANADA)

223 Acetyl substitution of glucuronan influences glucuronan cleavage by GlyA from *Sinorhizobium meliloti* M5N1CS (NCIMB 40472)

A. DA COSTA, P. MICHAUD (AMIENS, FRANCE), A. HEYRAUD, P. COLIN-MOREL (GRENOBLE, FRANCE), B. COURTOIS & J. COURTOIS (AMIENS, FRANCE)

229 Bibliography

237 Calendar

Number 3

Papers

239 Bioactive polysaccharides from *Costus spicatus*
BERNADETE PEREIRA DA SILVA & JOSÉ PAZ PARENTE (RIO DE JANEIRO, BRAZIL)

243 Cellulose protection during ozone treatments of oxygen delignified *Eucalyptus* kraft pulp
M. B. RONCERO, J. F. COLOM & T. VIDAL (TERRASSA, SPAIN)

255 Alkaline degradation of birch and spruce: influence of degradation conditions on molecular mass distributions and fibre strength
RICKARD BERGGREN, ULRICA MOLIN, FREDRIK BERTHOLD, HELENA LENNHOLM & MIKAEL LINDSTRÖM (STOCKHOLM, SWEDEN)

265 Film properties from crosslinking of cellulosic derivatives with a polyfunctional carboxylic acid
V. COMA, I. SEBTI, P. PARDON, F. H. PICHAVENT & A. DESCHAMPS (TALENCE, FRANCE)

273 Estimation of effective diffusivities and glass transition temperature of polydextrose as a function of moisture content
C. RIBEIRO, J. E. ZIMERI, E. YILDIZ & J. L. KOKINI (NEW BRUNSWICK, NJ, USA)

281 Degradation of cellulose under alkaline conditions
CHARLES J. KNILL & JOHN F. KENNEDY (BIRMINGHAM, UK)

301 Pectic substances isolated from apple cellulosic residue: structural characterisation of a new type of rhamnogalacturonan I
RAHEL OECHSLIN, MARC V. LUTZ & RENATO AMADÒ (ZURICH, SWITZERLAND)

311 Single-walled carbon nanotube–amylopectin complexes
LESZEK STOBINSKI (TAIPEI, TAIWAN, ROC), PIOTR TOMASIK (CRACOW, POLAND), CHENG-YI LII, HUA-HAN CHAN, HONG-MING LIN, HSIANG-LIN LIU, CHUN-TAO KAO & KUN-SHENG LU (TAIPEI, TAIWAN, ROC)

317 Chemical modifications of 1 → 4-2-amino-2-deoxy- α -D-galactan
L. E. LILLO & B. MATSUHIRO (SANTIAGO, CHILE)

327 The use of cholestryl pullulan for the preparation of stable vincristine liposomes
P. A. SIVAKUMAR & K. PANDURANGA RAO (CHENNAI, INDIA)

333 Physicochemical studies of extracellular polysaccharides of *Erwinia chrysanthemi* spp
QIONG DING, MICHAEL LABELLE, BYUNG YUN YANG & REX MONTGOMERY (IOWA CITY, IA, USA)

347 Structural characterization of chemically and enzymatically derived standard oligosaccharides isolated from partially purified tamarind xyloglucan
MAZZ MARRY, DAVID M. CAVALIER, JUDY K. SCHNURR, JASON NETLAND, ZHIYONG YANG, VIDA PEZESHK (FARGO, ND, USA.), WILLIAM S. YORK, MARKUS PAULY (ATHENS, GA, USA) & ALAN R. WHITE (FARGO, ND, USA.)

Short Communication

357 *Ipomoea turpethum* seeds: a potential source of commercial gum
VANDANA SINGH, VASUNDHARA SRIVASTAVA, MEENAKSHI PANDEY, RUPALI SETHI (ALLAHABAD, INDIA) & RASHMI SANGHI (KANPUR, INDIA)

Book Reviews

361 Food Colloids: Fundamentals of Formulation

- 361 Whole Grains and Their Health Benefits
- 362 Food Chemical Safety, Volume 1: Contaminants
- 362 Instrumentation and Sensors for the Food Industry
- 363 Genetic Engineering News—2001 Directory of Biotechnology Companies
- 364 Analytical Instrumentation: Performance, Characteristics and Quality
- 365 Bibliography
- 373 Calendar

Number 4

Papers

- 375 The kinetics of the homogeneous benzylation of potato starch in aqueous solutions
R. PIETERS, R. A. DE GRAAF & L. P. B. M. JANSSEN (GRONINGEN, THE NETHERLANDS)
- 383 Use of FT-IR spectroscopy as a tool for the analysis of polysaccharide food additives
MARCELA ČERNÁ (PRAGUE, CZECH REPUBLIC), ANTÓNIO S. BARROS, ALEXANDRA NUNES, SÍLVIA M. ROCHA, IVONNE DELGADILLO (AVEIRO, PORTUGAL), JANA ČOPÍKOVÁ (PRAGUE, CZECH REPUBLIC) & MANUEL A. COIMBRA (AVEIRO, PORTUGAL)
- 391 Enzymatic production of *N*-acetyl-*D*-glucosamine from chitin. Degradation study of *N*-acetylchitooligosaccharide and the effect of mixing of crude enzymes
HITOSHI SASHIWA, SHIZU FUJISHIMA, NAOKO YAMANO, NORIOKI KAWASAKI, ATSUYOSHI NAKAYAMA, EINOSUKE MURAKI (OSAKA, JAPAN), MONGKOL SUKWATTANASINITT, RATH PICHYANGKURA (BANGKOK, THAILAND) & SEI-ICHI AIBA (OSAKA, JAPAN)
- 397 Effects of heat treatment and dehydration on bioactive polysaccharide acemannan and cell wall polymers from *Aloe barbadensis* Miller
ANTONI FEMENIA (PALMA DE MALLORCA, SPAIN), PABLO GARCÍA-PASCUAL (VALÈNCIA, SPAIN), SUSANA SIMAL & CARMEN ROSELLÓ (PALMA DE MALLORCA, SPAIN)
- 407 Influence of growth temperature on the structure and thermodynamic parameters of barley starches
V.I. KISELEVA (MOSCOW, RUSSIAN FEDERATION), R.F. TESTER (GLASGOW, UK), L.A. WASSERMAN, A.V. KRIVANDIN, A.A. POPOV & V.P. YURYEV (MOSCOW, RUSSIAN FEDERATION)
- 417 The influence of various small plasticisers and malto-oligosaccharides on the retrogradation of (partly) gelatinised starch
A. L. M. SMITS, P. H. KRUISKAMP (UTRECHT, THE NETHERLANDS), J. J. G. VAN SOEST (WAGENINGEN, THE NETHERLANDS) & J. F. G. VLIEGENTHART (UTRECHT, THE NETHERLANDS)
- 425 Modified chitosan carrying phosphonic and alkyl groups
V. M. RAMOS, N. M. RODRÍGUEZ, M. S. RODRIGUEZ (BAHÍA BLANCA, ARGENTINA), A. HERAS (MADRID, SPAIN) & E. AGULLÓ (BAHÍA BLANCA, ARGENTINA)
- 431 Preparation and anticoagulant activity of carboxybutyrylated hydroxyethyl chitosan sulfates
HUANG RONGHUA, DU YUMIN & YANG JIANHONG (WUHAN, PEOPLE'S REPUBLIC OF CHINA)
- 439 Thermal and structural properties of unusual starches from developmental corn lines
Y. JI, K. SEETHARAMAN, K. WONG, L. M. POLLAK, S. DUVICK, J. JANE & P. J. WHITE (AMES, IA, USA)
- 451 Influence of sucrose on the rheology and granule size of cross-linked waxy maize starch dispersions heated at two temperatures
V. M. ACQUARONE & M.A. RAO (GENEVA, NY, USA)

Book Reviews

- 459 Principles of Analytical Chemistry: A Textbook
- 459 Application of Polymers in Foods

- 460 The Way of the Cell Molecules, Organisms, and the Order of Life
- 460 NMR Spectroscopy: Processing Strategies
- 461 Interpreting Organic Spectra
- 462 Handbook of Modern Pharmaceutical Analysis, Vol. 3
- 462 Functional Foods II: Claims and Evidence
- 463 Calendar
- 465 Volume contents